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REDACTED - FOR PUBLIC INSPECTION

November 25, 2014

VIA ELECTRONIC FILING

Marlene H. Dortch, Secretary Federal Communications Commission 445 Twelfth Street, S.W. Washington, D.C. 20554

Re: Applications of Comcast Corp., Time Warner Cable Inc., Charter Communications, Inc., and SpinCo for Consent to Assign or Transfer Control of Licenses and Authorizations, MB Docket No. 14-57
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Dear Ms. Dortch:

Pursuant to the Modified Joint Protective Order in this proceeding, ¹ Comcast Corporation hereby submits the enclosed redacted *ex parte* letter containing Highly Confidential Information. The {{}} symbols denote where Highly Confidential Information has been redacted. The unredacted, Highly Confidential version of this filing was submitted to the Secretary's Office under separate cover.

Please contact the undersigned should you have any questions regarding this matter.

Respectfully submitted,

Michael D. Hurwitz

Counsel for Comcast Corporation

Enclosure

Applications of Comcast Corp. and Time Warner Cable Inc. for Consent to Assign or Transfer Control of Licenses and Authorizations, Second Amended Modified Joint Protective Order, MB Docket No. 14-57, DA 14-1639 (Nov. 12, 2014) ("Modified Joint Protective Order").



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Dear Ms. Dortch:

The following provides further detail regarding points raised during the October 30, 2014 meeting between representatives of Comcast Corporation ("Comcast"), including Kevin McElearney (Senior Vice President, Network Engineering, Comcast Cable), and FCC staff.¹

With regard to Comcast's interconnection arrangements with {{

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This illustrates why certain edge providers (and several CDNs) choose to enter into direct connection arrangements with Comcast, particularly those that send large amounts of traffic. Although the rich set of routes into Comcast's network provides abundant interconnection options for an edge

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See Letter from Kathryn A. Zachem, Senior Vice President, Regulatory and State Legislative Affairs, Comcast Corp., to Marlene H. Dortch, Secretary, FCC, MB Docket No 14-57 (Nov. 3, 2014). The letter incorrectly stated the date of the meeting as October 14, 2014. The meeting occurred on October 30, 2014.

² See Comcast Corp. and Time Warner Cable Inc., Opposition to Petitions to Deny and Response to Comments, MB Docket No. 14-57, Exhibit 4, Declaration of Kevin McElearney ¶ 33 ("McElearney Decl.") (Sept. 23, 2014).

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provider to utilize without having to ever deal directly with Comcast (as the vast majority do), entering into a direct connection agreement can be attractive, provided that Comcast offers better pricing and/or value than the options available from third parties. Because the transit market is highly competitive – as evidenced by transit prices that have fallen precipitously and continue to fall – Comcast has to make compelling pricing offers to make the direct interconnection option more attractive than the various indirect interconnection options. Although price is the key economic factor, a direct peering arrangement also provides a contractual framework for more formalized joint planning for capacity needs over time and greater localization of interconnection, which the edge provider or CDN may desire for its own business purposes.³ In addition, direct interconnection may be desirable for applications with high latency sensitivity (such as gaming), though this is typically not a relevant factor for online video services; the additional hop involved in connecting through a third-party CDN or transit provider does not materially alter the quality of such services (unless, of course, that third party has significantly oversubscribed its network infrastructure).

Comcast's multi-billion dollar investment in its national network facilities over the past decade has enabled a deeper and richer set of connections to and from Comcast's network, not only with settlement-free peers, but with CDNs and other transit providers. For example, it enabled interconnection with Comcast in regional peering centers across the country, improving the resiliency of the Internet and the end-to-end user experience. In fact, Comcast has tripled the number of its peering locations in the past seven years, including by adding peering points in areas that are not traditional peering locations, such as Boston, Denver, and Houston. These and other investments in turn allowed Comcast to offer new services in the backbone market – including both on-net and off-net transit – adding to the competitive eco-system as a whole.⁴ As noted, one reason that CDNs may opt for direct interconnection is that it suits their network design and operations and business plans to interconnect at Comcast's multiple peering points rather than rely solely on third-party transit provider(s) that may pick up traffic and/or interconnect with Comcast in fewer locations.

With regard to Comcast's settlement-free peering arrangements, as we have stated, settlement-free peering is a two-way street and not a permanent entitlement, and Comcast is often the requesting party for such arrangements (and sometimes its requests to peer with other networks have been rejected). If Comcast's share of the traffic burden with a settlement-free peer were out of balance for

See Comcast Corp. and Time Warner Cable Inc., Opposition to Petitions to Deny and Response to Comments, MB Docket No. 14-57, Exhibit 5, Declaration of Constantine Dovrolis at 11 (Sept. 23, 2014) ("A paid-peering interconnection may be chosen to provide a redundant route alternative to an indirect transit route into the network – something large CDNs may do to ensure that they have several options for quality routing. A paid-peering arrangement may also make sense when a party has a large amount of traffic destined for the receiving network, and direct interconnection would be less expensive and/or more predictable and reliable than relying on an indirect transit provider to reach that network.").

See id. at 13-14 (discussing the investment in backbone networks and the emergence of CDNs); McElearney Decl. ¶¶ 5, 27-28 (discussing how Comcast's investment in its backbone network allowed it to compete in the backbone marketplace).

⁵ See McElearney Decl. ¶ 9.

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a sustained period, and therefore not in compliance with the peer's settlement-free policy, Comcast would absolutely expect that peer to invite Comcast to enter into a commercial paid peering arrangement with it to handle the excess traffic load. Of course, Comcast would also try to find ways to *avoid* non-compliance with the settlement-free partner's policy – either by addressing the source of the excess traffic if warranted (e.g., an off-net transit customer that allowed its traffic to spike beyond contracted-for levels), or by working with its customer(s) to find a different way to route the excess traffic. If neither of those options was feasible, and if its traffic remained out of balance, Comcast would fully expect to pay for direct interconnection.

Please direct any questions to the undersigned.

Respectfully submitted,

/s/ Kathryn A. Zachem

Senior Vice President, Regulatory and State Legislative Affairs Comcast Corporation

cc: Hillary Burchuk